WHAT IS CLAIMED IS:

1. A method comprising:
determining whether a source address for a first packet sent by the source address to a destination address qualifies as a threat;
examining the first packet; and
determining a response to the first packet based upon the examining.

2. The method of claim 1 further comprising:
when the source address qualifies as the threat,
determining whether the destination address is synthetic.

3. The method of claim 2 further comprising:
when the destination address is synthetic,
determining the response to be dropping the first packet.

4. The method of claim 3 further comprising:
dropping the first packet.

5. The method of claim 2 further comprising:
when the destination address is not synthetic,
determining whether the source address is on a local network.

6. The method of claim 5 further comprising:
when the source address is not on the local network,
determining that the response is to perform for each respective device of a plurality of devices on the local network:
selecting the respective device,
creating a respective synthetic hardware address for the respective device,
creating an address control protocol message comprising
the respective synthetic hardware address as a message source address,
inserting a corresponding hardware address for a gateway communicating on behalf of the source address in the address control protocol message as a message destination hardware address, and
sending the address control protocol message.

7. The method of claim 6 further comprising:
performing the response.

8. The method of claim 6 wherein
the creating the respective synthetic hardware address for the respective device comprises
ensuring that the respective synthetic hardware address is not in use on the local network.

9. The method of claim 6 further comprising:
inserting a corresponding logical address for the gateway in the address control protocol message as a message destination logical address.

10. The method of claim 6 wherein
the gateway inserts an entry into an address resolution protocol table in response to receiving the address resolution protocol message, wherein
the entry comprises
the respective synthetic hardware address for the respective device.

11. The method of claim 5 further comprising:
when the source address is on a local network, determining that the response comprises
creating a synthetic hardware address, and
performing for each respective device of a plurality of devices on the local network:
selecting the respective device,
creating an address control protocol message comprising
the synthetic hardware address as a message source address,
inserting a corresponding hardware address for the respective device in the address control protocol message as a message destination hardware address, and
sending the address control protocol message.

12. The method of claim 11 further comprising:
performing the response.

13. The method of claim 11 wherein
the creating the synthetic hardware address comprises ensuring that the synthetic hardware address is not in use on the local network.

14. The method of claim 11 further comprising:
inserting a corresponding logical address for the respective device in the address control protocol message as a message destination logical address.

15. The method of claim 11 wherein
the respective device inserts an entry into an address resolution protocol table in response to receiving the address resolution protocol message, wherein
the entry comprises
the synthetic hardware address as a source hardware address for the source address.

16. The method of claim 5 further comprising:
when the source address is on the local network,
determining that the response is to perform for each respective device of a plurality of devices on the local network:
selecting the respective device,
creating a respective synthetic hardware address for the respective device,
creating an address control protocol message comprising
the respective synthetic hardware address as a message source address,
inserting the source address in the address control protocol message as a message destination hardware address, and
sending the address control protocol message.

17. The method of claim 16 further comprising:
performing the response.

18. The method of claim 16 wherein
the creating the respective synthetic hardware address for the respective device comprises ensuring that the respective synthetic hardware address is not in use on the local network.

19. The method of claim 16 further comprising:
inserting a corresponding logical address for the source address in the address control protocol message as a message destination logical address.

20. The method of claim 16 wherein
the source address inserts an entry into an address resolution protocol table in response to receiving the address resolution protocol message, wherein
the entry comprises
the respective synthetic hardware address for the respective device.

21. The method of claim 1 further comprising:
when the source address fails to qualify as the threat,
determining whether the destination address qualifies as a second threat.

22. The method of claim 21 further comprising:
when the destination address qualifies as the second threat,
determining whether the destination address comprises a synthetic hardware address, and
when the destination address is a synthetic hardware address,
determining the response to be dropping the first packet.

23. The method of claim 22 further comprising:
dropping the first packet.

24. The method of claim 21 further comprising:
when the destination address fails to qualify as the second threat,
determining whether the destination address is a synthetic hardware address, and
when the destination address is the synthetic hardware address, determining the response to comprise
modifying the first packet by replacing the destination address with a hardware address for a device at the destination address; and
sending the first packet.

25. The method of claim 24 further comprising:
performing the response.

26. The method of claim 1 further comprising:
when the source address qualifies as the threat,
determining a packet type of the first packet.

27. The method of claim 26 further comprising:
when the packet type of the first packet is an address resolution protocol request,
determining that the response comprises
creating a reply comprising the destination address as a reply source address, and
sending the reply to the source address.

28. The method of claim 26 further comprising:
when the packet type of the first packet is an internet common message protocol echo request,
determining that the response comprises
creating a reply to indicate that the destination address is active; and
sending the reply to the source address.

29. The method of claim 26 further comprising:
when the packet type of the first packet is transmission control protocol,
determining whether the first packet is a transmission control protocol syn request;
when the first packet is the transmission control protocol syn request,
determining that the response comprises
creating a transmission control protocol syn response indicating that the source address must receive an acknowledgement for each subsequent packet before the source address can transmit another subsequent packet; and
sending the transmission control protocol syn response to the source address.

30. The method of claim 26 further comprising:
when the packet type of the first packet is transmission control protocol,
determining whether the first packet is a transmission control protocol syn request;
when the first packet is the transmission control protocol syn request,
determining that the response comprises
creating a transmission control protocol syn response
comprising a payload; and
sending the transmission control protocol syn response to the
source address.

31. The method of claim 30 wherein
a size of the payload is smaller than a maximum size permitted by a network by which the
first packet was transmitted.

32. The method of claim 26 further comprising:
when the packet type of the first packet is transmission control protocol,
determining whether the first packet is a transmission control protocol window probe;
and
when the first packet is the transmission control protocol window probe,
determining that the response comprises
creating a transmission control protocol window probe
response comprising a transmission control protocol
window size of zero, and
sending the transmission control protocol window probe
response to the source address.

33. The method of claim 26 further comprising:
when the packet type of the first packet is transmission control protocol,
determining whether the first packet is a transmission control protocol window probe;
when the first packet is the transmission control protocol window probe,
determining that the response comprises
creating a transmission control protocol syn response
comprising a payload; and

sending the transmission control protocol syn response to the source address.

34. The method of claim 33 wherein a size of the payload is smaller than a maximum size permitted by a network by which the first packet was transmitted.

35. The method of claim 26 further comprising:
when the packet type of the first packet is transmission control protocol,
determining whether the first packet is a transmission control protocol acknowledgement;
and
when the first packet is the transmission control protocol acknowledgement,
determining that the response comprises
ignoring the first packet.

36. The method of claim 26 further comprising:
performing the response.

37. The method of claim 1 wherein
the source address comprises at least one of a logical address and a physical address.

38. The method of claim 1 wherein
the destination address comprises a logical address.

39. The method of claim 1 wherein
the examining the first packet comprises examining a header for the first packet.

40. The method of claim 1 wherein
the examining the first packet does not comprise examining a payload for the first packet.

41. A method comprising:
examining a first packet sent by a source address to a destination address;
determining whether the destination address is a synthetic hardware address; and
when the destination address is the synthetic hardware address,

modifying the first packet by replacing the destination address with a hardware address for a device to receive communication targeted to the destination address, and

sending the first packet.

42. A system comprising:

threat-determining means for determining whether a source address for a first packet sent by the source address to a destination address qualifies as a threat;

examining means for examining the first packet; and

response-determining means for determining a response to the first packet based upon the examining.

43. The system of claim 42 further comprising:

synthetic-address-determining means for determining whether the destination address is synthetic.

44. The system of claim 43 wherein:

the response-determining means determine the response to be dropping the first packet when the destination address is synthetic.

45. The system of claim 44 further comprising:

dropping means for dropping the first packet.

46. The system of claim 42 further comprising:

location-determining means for determining whether the source address is on a local network.

47. The system of claim 46 wherein

when the location-determining means determine that the source address is not on the local network,

the response-determining means are configured to determine that the response is to perform for each respective device of a plurality of devices on the local network:

select the respective device,

create a respective synthetic hardware address for the respective device,

create an address control protocol message comprising

the respective synthetic hardware address as a message source address,

insert a corresponding hardware address for a gateway communicating on behalf of the source address in the address control protocol message as a message destination hardware address, and

send the address control protocol message.

48. The system of claim 46 wherein

when the location-determining means determine that the source address is on the local network,

the response-determining means are configured to determine that the response is to

create a synthetic hardware address, and

perform for each respective device of a plurality of devices on the local network:

select the respective device,

create an address control protocol message comprising the synthetic hardware address as a message source address,

insert a corresponding hardware address for the respective device in the address control protocol message as a message destination hardware address, and

send the address control protocol message.

49. The system of claim 46 wherein

when the location-determining means determine that the source address is on the local network,

the response-determining means are configured to determine that the response is to

perform for each respective device of a plurality of devices on the local network:

select the respective device,

create a respective synthetic hardware address for the respective device,

create an address control protocol message comprising the respective synthetic hardware address as a message source address,

insert the source address in the address control protocol message as a message destination hardware address, and

send the address control protocol message.

50. The system of claim 42 further comprising:
second threat-determining means for determining whether the destination address qualifies as a second threat.

51. The system of claim 50 further comprising:
second synthetic-address-determining means for determining whether the destination address is a synthetic hardware address.

52. The system of claim 51, wherein
when the second synthetic-address-determining means determine that the destination address is the synthetic hardware address,
the response-determining means are configured to determine that the response comprises
modifying the first packet by replacing the destination address with a hardware address for a device at the destination address, and
sending the first packet.

53. The system of claim 42 further comprising:
packet-type-determining means for determining a packet type of the first packet.

54. The system of claim 53 wherein
when the packet-type-determining means determine that the packet type of the first packet is an address resolution protocol request,
the response-determining means are configured to determine that the response comprises
creating a reply comprising the destination address as a reply source address, and
sending the reply to the source address.

55. The system of claim 42 further comprising:
performing means for performing the response.

56. A system comprising:
examining means for examining a first packet sent by a source address to a destination address;

determining means for determining whether the destination address is a synthetic hardware address;

modifying means for modifying the first packet by replacing the destination address with a hardware address for a device to receive communication targeted to the destination address when the destination address is the synthetic hardware address; and

sending means for sending the first packet when the destination address is the synthetic hardware address.

57. A system comprising:

a threat-determining module configured to determine whether a source address for a first packet sent by the source address to a destination address qualifies as a threat;

an examining module configured to examine the first packet; and

a response-determining module configured to determine a response to the first packet based upon the examining.

58. The system of claim 57 further comprising:

a synthetic-address-determining module configured to determine whether the destination address is synthetic.

59. The system of claim 58 wherein:

the response-determining module determines the response to be dropping the first packet when the destination address is synthetic.

60. The system of claim 59 further comprising:

a dropping module configured to drop the first packet.

61. The system of claim 57 further comprising:

a location-determining module configured to determine whether the source address is on a local network.

62. The system of claim 61 wherein

when the location-determining module determines that the source address is not on the local network,

the response-determining module is configured to determine that the response is to perform for each respective device of a plurality of devices on the local network:

select the respective device,
create a respective synthetic hardware address for the respective device,
create an address control protocol message comprising
the respective synthetic hardware address as a message source address,
insert a corresponding hardware address for a gateway communicating on behalf of the source address in the address control protocol message as a message destination hardware address, and
send the address control protocol message.

63. The system of claim 61 wherein
when the location-determining module determines that the source address is on the local network,
the response-determining means are configured to determine that the response is to
create a synthetic hardware address, and
perform for each respective device of a plurality of devices on the local network:
select the respective device,
create an address control protocol message comprising
the synthetic hardware address as a message source address,
insert a corresponding hardware address for the respective device in the address control protocol message as a message destination hardware address, and
send the address control protocol message.

64. The system of claim 61 wherein
when the location-determining module determines that the source address is on the local network,
the response-determining module is configured to determine that the response is to
perform for each respective device of a plurality of devices on the local network:
select the respective device,
create a respective synthetic hardware address for the respective device,
create an address control protocol message comprising
the respective synthetic hardware address as a message source address,

insert the source address in the address control protocol message as a message destination hardware address, and

send the address control protocol message.

65. The system of claim 57 further comprising:

a second threat-determining module configured to determine whether the destination address qualifies as a second threat.

66. The system of claim 57 further comprising:

a second synthetic-address-determining module configured to determine whether the destination address is a synthetic hardware address.

67. The system of claim 66, wherein

when the second synthetic-address-determining module determines that the destination address is the synthetic hardware address,

the response-determining module is configured to determine that the response comprises

modifying the first packet by replacing the destination address with a hardware address for a device at the destination address, and

sending the first packet.

68. The system of claim 57 further comprising:

a packet-type-determining module configured to determine a packet type of the first packet.

69. The system of claim 68 wherein

when the packet-type-determining module determines that the packet type of the first packet is an address resolution protocol request,

the response-determining module is configured to determine that the response comprises

creating a reply comprising the destination address as a reply source address, and

sending the reply to the source address.

70. The system of claim 57 further comprising:

a performing module configured to perform the response.

71. A system comprising:

an examining module configured to examine a first packet sent by a source address to a destination address;

a determining module configured to determine whether the destination address is a synthetic hardware address;

a modifying module configured to modify the first packet by replacing the destination address with a hardware address for a device to receive communication targeted to the destination address when the destination address is the synthetic hardware address; and

a sending module configured to send the first packet when the destination address is the synthetic hardware address.

72. A computer-readable medium comprising:

threat-determining instructions configured to determine whether a source address for a first packet sent by the source address to a destination address qualifies as a threat;

examining instructions configured to examine the first packet; and

response-determining instructions configured to determine a response to the first packet based upon the examining.

73. The computer-readable medium of claim 72 further comprising:

synthetic-address-determining instructions configured to determine whether the destination address is synthetic.

74. The computer-readable medium of claim 73 wherein:

the response-determining instructions determines the response to be dropping the first packet when the destination address is synthetic.

75. The computer-readable medium of claim 74 further comprising:

dropping instructions configured to drop the first packet.

76. The computer-readable medium of claim 72 further comprising:

location-determining instructions configured to determine whether the source address is on a local network.

77. The computer-readable medium of claim 76 wherein

when the location-determining instructions determines that the source address is not on the local network,

the response-determining instructions is configured to determine that the response is to perform for each respective device of a plurality of devices on the local network:

select the respective device,

create a respective synthetic hardware address for the respective device,

create an address control protocol message comprising

the respective synthetic hardware address as a message source address,

insert a corresponding hardware address for a gateway communicating on behalf of the source address in the address control protocol message as a message destination hardware address, and

send the address control protocol message.

78. The computer-readable medium of claim 76 wherein

when the location-determining instructions determines that the source address is on the local network,

the response-determining means are configured to determine that the response is to

create a synthetic hardware address, and

perform for each respective device of a plurality of devices on the local network:

select the respective device,

create an address control protocol message comprising

the synthetic hardware address as a message source address,

insert a corresponding hardware address for the respective device in the address control protocol message as a message destination hardware address, and

send the address control protocol message.

79. The computer-readable medium of claim 76 wherein

when the location-determining instructions determines that the source address is on the local network,

the response-determining instructions is configured to determine that the response is to perform for each respective device of a plurality of devices on the local network:
select the respective device,
create a respective synthetic hardware address for the respective device,
create an address control protocol message comprising
the respective synthetic hardware address as a message source address,
insert the source address in the address control protocol message as a message destination hardware address, and
send the address control protocol message.

80. The computer-readable medium of claim 72 further comprising:
second threat-determining instructions configured to determine whether the destination address qualifies as a second threat.

81. The computer-readable medium of claim 72 further comprising:
second synthetic-address-determining instructions configured to determine whether the destination address is a synthetic hardware address.

82. The computer-readable medium of claim 81, wherein
when the second synthetic-address-determining instructions determine that the destination address is the synthetic hardware address,
the response-determining instructions is configured to determine that the response comprises
modifying the first packet by replacing the destination address with a hardware address for a device at the destination address, and
sending the first packet.

83. The computer-readable medium of claim 72 further comprising:
packet-type-determining instructions configured to determine a packet type of the first packet.

84. The computer-readable medium of claim 83 wherein
when the packet-type-determining instructions determines that the packet type of the first packet is an address resolution protocol request,

the response-determining instructions is configured to determine that the response comprises

creating a reply comprising the destination address as a reply source address, and

sending the reply to the source address.

85. The computer-readable medium of claim 72 further comprising:

performing instructions configured to perform the response.

86. A computer-readable medium comprising:

examining instructions configured to examine a first packet sent by a source address to a destination address;

determining instructions configured to determine whether the destination address is a synthetic hardware address;

modifying instructions configured to modify the first packet by replacing the destination address with a hardware address for a device to receive communication targeted to the destination address when the destination address is the synthetic hardware address; and

sending instructions configured to send the first packet when the destination address is the synthetic hardware address.